

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,468	01/23/2002	Armin Diez	HOG610	6440
7590	11/04/2003			
Edward J. Timmer Walnut Woods Center 5955 W. Main Street Kalamazoo, MI 49009			EXAMINER KYLE, MICHAEL J	
			ART UNIT 3676	PAPER NUMBER

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/052,468

Applicant(s)

DIEZ ET AL.

Examiner

Michael J Kyle

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23 and 25 is/are allowed.
- 6) ☒ Claim(s) 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 and 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Udagawa (U.S. Patent No. 6,250,645)(Udagawa '645) in view of Udagawa (U.S. Patent No. 6,036,195)(Udagawa '195). Udagawa '645 discloses a cylinder head gasket with a metallic gasket plate comprising one metal sheet layer and having several combustion chamber openings (Hc, figure 1), each being surrounded by at least one first bead (D13) formed in a sheet metal layer of the gasket plate and having a spring rate so as to be elastically deformable in height wherein for delimiting the elastic deformation of the first bead, at least one delimiting device (D11, D12) is associated with each of the first beads, the delimiting device is associated with each of the first beads, the delimiting device being close to the respective first bead, surrounding the respective combustion chamber opening and being obtained by deformation of a sheet metal layer of the gasket plate such that the delimiting device (D11, D12) is formed by at least one second bead of the deformed metal layer, the second bead having a spring rate and surrounding the associated combustion chamber opening completely and. Udagawa '645 also discloses the spring rate of the second bead is greater than the spring rate of the associated first bead when measured perpendicularly to the gasket, the second bead (D12) is disposed between the associated combustion chamber opening (Hc) and the associated first bead (D13) and the height

Art Unit: 3676

of the second bead is selected so as to allow an elastic deformation of the associated first bead.

Udagawa '645 further discloses the total area occupied by the second bead is at least equal to half of the total area occupied by the delimiting device.

3. Udagawa '645 does not disclose the second bead forming over part of the length of the second bead a complete meander extending in a circumferential direction of the chamber opening.

4. Udagawa '195 teaches the second bead forming over part of the length of the second bead a complete meander extending in a circumferential direction of the chamber opening to support the tightening pressure applied to the combustion chamber (Hc). Udagawa '195 discloses the inner bead (B15) may be a corrugated bead (column 2, line 47). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Udagawa '645 as taught by Udagawa '195 to support the tightening pressure applied to the combustion chamber.

***Allowable Subject Matter***

5. Claims 1-23 and 25 are allowed.

***Response to Arguments***

6. Applicant's arguments filed August 4, 2003, have been fully considered but they are not persuasive with respect to claim 24. Applicant argues that neither Udagawa '645 nor Udagawa '195 discloses nor suggests the delimiting device as claimed in claim 24. Specifically, applicant argues that the combination of Udagawa '645 and Udagawa '195 would result in multiple sealing

Art Unit: 3676

beads disposed around the combustion chamber opening. In addition, applicant argues that Udagawa '195 teaches "double" sealing beads, the beads are the same height, and that the total area occupied by the sealing bead is less than 50% of the total area occupied by the annular zone. Examiner notes that Udagawa '195 is used only to teach a meandering bead to support tightening pressure applied to the gasket. Udagawa'645 discloses all of the other limitations of the claim. Furthermore, the "sealing bead" of Udagawa '645 meets all of the structural limitations of the delimiting device set forth in claim 24 of the present application.

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

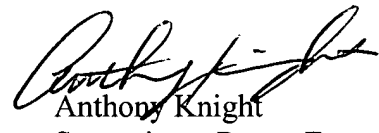
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Kyle whose telephone number is 703-305-3614. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

Art Unit: 3676

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

mk



Anthony Knight  
Supervisory Patent Examiner  
Technology Center 3600